

# BLACK HORSE HILL INFANT SCHOOL



## Design and Technology Policy

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Approved by Committee \_\_\_\_\_

22<sup>nd</sup> June 2023

Approved by Full Governing Body \_\_\_\_\_

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Signed \_\_\_\_\_ (Chair)

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Signed \_\_\_\_\_ (Headteacher)

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## 1. Vision, Aims and Values

### LEARNING FOR LIFE



### School Vision

#### **Together, our schools will:**

Nurture and empower our children to become creative, compassionate and confident citizens, in a diverse and ever-changing world.

### School Aims

#### **Our school community will:**

- Have high expectations for all
- Inspire a passion for learning
- Provide an enjoyable, ambitious, coherent curriculum
- Develop positive relationships through collaboration
- Create a safe and happy environment

### School Values

#### **All our children, staff and parents will share the same core principles of:**

- Respect
- Honesty
- Kindness
- Excellence
- Resilience
- Friendship
- Courtesy

## 2. Legal framework

This policy has due regard to statutory legislation and guidance including, but not limited to the following:

- DfE (2014) National Curriculum for England: design and Technology programmes of study
- DfE (2020) Statutory framework for the Early Years Foundation Stage

## 3. Intent for Art and Design

*“There is art in everything, whether it be in action, a vase, a saucepan, a glass, a sculpture, a jewel, a way of being.” Charlotte Perriand*

*“Everything changes so quickly, and what is state of the art one moment won't be the next. Adaptation has to be ongoing – we have to know and accept this. These are transient times.” Charlotte Perriand*

## Curriculum

Design and technology prepares children to take part in the development of tomorrows rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. Design and technology encourages children to become autonomous and creative problem-solvers, individually and collaboratively. Children evaluate their ideas and products against a design criteria and respond by making changes, further develop ideas, and make links between their idea and that of others. They develop techniques to make purposeful, functional and appealing products. Through the study of design and technology our children at Black Horse Hill Infant School combine practical skills with an understanding of aesthetic and environmental issues. Our children consider the purpose of products and the intended audience. Through design and technology we encourage our children to become discriminatory, informed consumers of technology and future innovators.

### **4. Implementation for Design and Technology**

#### **EYFS:**

Learning and experiences for early years' children will be based on the seven areas of learning and development as outlined in the DfE's Statutory Framework for the Early Years Foundation Stage. For design and technology learning, the area of learning 'Expressive Arts and Design', predominantly contains strands within 'Creating with Materials.' Our early years children are given many opportunities to be expressive and design their own creations and models. They develop their knowledge and understanding of being expressive in art and design by working simultaneously and symbiotically across the other six areas of learning. Importantly, our early years children begin to acquire design and technology vocabulary that they build on through the rest of their schooling.

Early experiences in design and technology learning includes asking questions about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with increasing control.

#### **EYFS – Expressive Arts and Design – ELG Creating with Materials**

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Share their creations, explaining the process they have used.

#### **KS1:**

The National Curriculum is followed and provides a full breakdown of the statutory content to be taught within each unit.

#### **Subject content Key stage 1**

Children are taught:

#### **Design**

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

## **Make**

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

## **Evaluate**

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

## **Technical knowledge**

- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

## **Teaching and Learning**

The design and technology subject leader will be responsible for overseeing the planning, resourcing and monitoring of the school's design and technology programme.

The subject matter covered in design and technology reflects the requirements of the national curriculum.

Special focus will be paid to the teaching of the skills inherent in the entire design and technology curriculum taught at the school. These skills include:

- design purposeful, functional and appealing products
- Use a design criteria
- Generate, develop, model and communicate ideas through discussion and drawing
- Use templates and mock-ups and where appropriate use information and communication technology
- Select from a range of materials and components, e.g. ingredients, textiles and materials and discuss their characteristics
- Explore and evaluate a range of existing products
- Evaluate their own ideas and products against a design criteria
- Build structures and explore how they could be made stronger, stiffer and more stable
- Explore and use mechanisms in their products

The design and technology programme will be delivered by all teachers in a range of teaching and learning situations, with respect to the needs of individual pupils.

At Black Horse Hill Infant School, we follow 'Curriculum Maestro' as a foundation for planning. Teachers then adapt this to meet the needs of their pupils.

## Design and technology has links with other subjects:

### English:

Design and Technology contributes to the teaching of English in our school by providing valuable opportunities to reinforce what the children have been doing during their design and technology lessons. The evaluation of products requires children to articulate their ideas and to compare and contrast their views with those of other people. Through discussion children learn to justify their own views and clarify their design ideas.

### Mathematics:

The teaching of design and contributes to children's mathematical understanding of shape and space when working in two or three dimensions.

### Computing:

We use computing to support Design and Technology teaching when appropriate. Children use software to enhance their skills in designing and making, e.g. 'Scratch' to model ideas. They use the internet to gain access to images of characters, people and environments.

### PSHE/Jigsaw:

Children will work collaboratively, often sharing ideas or working in pairs or small groups.

### Moral, Spiritual and Cultural:

In design and technology children are learning about artists from different cultures and communities from around the world. Design and technology aids the spiritual development of children through a sense of wonder with the physical world and how humans represent this.

### Planning:

Through staff training, all teachers know the expectations for planning in design and technology. Design and technology is taught discretely from Curriculum Maestro projects. Design and technology is identified at the beginning along with the project name and linked to the national curriculum programme of study.

Long-term planning will be used to outline the units taught within each year group:

F1		
Autumn	Spring	Summer
<p><b><i>EAD opportunities through continuous provision activities</i></b></p> <p>Introduce the use of different tools and materials used for DT for example glue sticks, glue spreaders sellotape, masking tape, and scissors. Tools and resource es modelled to children. Children begin to select tools resources for different purposes.</p>	<p><b><i>EAD opportunities through continuous provision.</i></b></p> <p>Introduce the use of different tools and materials used for DT for example glue sticks, glue spreaders sellotape, masking tape, and scissors. Tools and resource es modelled to children. Children begin to select tools resources for different purposes.</p>	<p><b><i>EAD opportunities through continuous provision.</i></b></p> <p>Introduce the use of different tools and materials used for DT for example glue sticks, glue spreaders sellotape, masking tape, and scissors. Tools and resource es modelled to children. Children begin to select tools resources for different purposes.</p>

<p>Explore construction materials available in Continuous provision. Initiate own designs and refine with adult support.</p> <p><b>Build it up:</b> Children learn about structures and materials. Design, build and refine structures discussing suitability of materials selected. Children build bridges</p>	<p>Explore construction materials available in Continuous provision.</p> <p>Children to make their own instruments selecting and choosing appropriate materials.</p>	<p>Select tools and materials to create own designs.</p> <p>Explore construction materials available in Continuous provision.</p>
<b>F2</b>		
<b>Autumn</b>	<b>Spring</b>	<b>Summer</b>
<p><b>EAD opportunities through continuous provision.</b></p> <p>Safely use and explore a variety of materials to create own designs. Investigate joining techniques</p> <p>Explore construction materials available in Continuous provision.</p> <p><b>Design, create and build houses using junk modelling materials</b> and have the opportunity to refine and improve designs.</p> <p><b>Making healthy vegetable Soup</b></p> <p>Be introduced to basic food hygiene and the importance of handwashing.</p> <p>To name different vegetables and know where they grow.</p> <p>To know that vegetables contribute to a healthy diet.</p> <p>Recognise how to peel and chop vegetables and that the components make end product.</p> <p>To say whether they like or dislike the soup and how it can be made better.</p>	<p><b>EAD opportunities through continuous provision.</b></p> <p>Safely use and explore a variety of materials to create own designs. Investigate joining techniques</p> <p>Build their own models using recycled materials. Create models collaboratively sharing ideas and resources.</p>	<p>Safely use and explore a variety of materials to create own designs. Investigate joining techniques</p> <p>Create a rooftop garden using materials inspired by Errol's garden.</p> <p>Weaving using textiles.</p> <p>Design and make animal masks.</p>
<b>Y1</b>		
<b>Autumn</b>	<b>Spring</b>	<b>Summer</b>
<p><b>Funny Faces – Cut, stick and join.</b> Cut, stick and join textiles using glue and simple stitches. Using gluing, stapling or tying to decorate fabric, including buttons and sequins. Explore new ways of joining materials by using simple stitches. Demonstrate how to join paper to paper or paper to fabric using a simple running stitch. Add embellishments e.g. beads and sequins using a single stitch.</p> <p><b>Paws, Claws and Whiskers – Food packaging and labels. 2023-24</b> Design purposeful, functional, appealing products for themselves and other users based on a design criteria. Generate ideas through talking, drawing, templates and mock ups and use information and communication technology.</p>	<p><b>Taxi - Design and Technology</b> Children will design, create and evaluate a taxi.</p> <p>Children learn about wheels, axles and chassis and how they work together to make a vehicle move. They will know: A wheel is a circular object that is joined to an axle. An axle is a rod that goes through the centre of a wheel and allows it to turn A chassis is the frame of a vehicle Whilst making a taxi they will explore and use mechanisms.</p> <p><b>Seasonal Changes – shelter (look also at Shade and Shelter Y1)</b> Provide a range of resources such as dried leaves, twigs, fabric etc to make a shelter for animals near the Bug Hotel. Discuss materials can be used for different purposes e.g. cardboard is stronger than paper. Plastic is waterproof. Build a</p>	<p><b>Moon Zoom!</b> Design and make a model spaceship or rocket using a variety of junk materials. Investigate different ways to make and join their structures, using taping, gluing and tying. Explore ways of making a structure sturdier so that it can stand alone.</p> <p><b>Push and Pull – make a Father's day card</b> using a slider mechanism with two components: slider and guide. Know that mechanisms create different types of movement, e.g. side-to-side; up-and-down; round-and-round. Know that one type of mechanism is called a 'slider'. Make a Father's Day card with a slider mechanism that moves in a straight line.</p> <p>Food technology linked to HBHMW</p>

Design and make a label for a can of 'tiger food.'	strong, stiff and stable shelter for small animals such as squirrels or hedgehogs.	
<b>Y2</b>		
<b>Autumn</b>	<b>Spring</b>	<b>Summer</b>
<p><b>Wriggle and Crawl – Exploring Honey Fun Food Chef</b></p> <p>Know about the importance of hygiene in food preparation. Recognise that some people have allergies and this can influence food preparation.</p> <p>Know that a range of tools and equipment can be used in food preparation, e.g. slicing, chopping, cutting, rolling, kneading, shaping.</p> <p>Select a range of ingredients according to their characteristics to mix together to make food containing honey.</p> <p>Use the basic principles of a healthy and varied diet. To begin to recognise that there are different food groups.</p> <p>To name foods that are nutritious and healthy and why they are important for a balanced diet.</p> <p>Evaluate and critique their cooking and meals and say how it could be improved.</p> <p><b>Movers and Shakers – William Morris – Port Sunlight Trip</b></p> <p>Textiles - Make copper tiles using natural physicals such as leaves, pine cones, trees etc to design a pattern for copper tile. Emboss the tile with pattern.</p>	<p><b>Bog Baby Sculptures</b></p> <p>Design a Bog baby using drawing and labelling.</p> <p>Combine ingredients to make a malleable material.</p> <p>Use different components to create their design.</p> <p>Evaluate the end product and identify how it could be improved.</p> <p><b>The Scented Garden - Making a pizza with plant ingredients</b></p> <p>Fun Food Chef</p> <p>Know about the importance of hygiene in food preparation. Recognise that some people have allergies, and this can influence food preparation.</p> <p>Know that a range of tools and equipment can be used in food preparation, e.g. slicing, chopping, cutting, rolling, kneading, shaping.</p> <p>Select a range of ingredients according to their characteristics to mix together to make food containing plants.</p> <p>Use the basic principles of a healthy and varied diet. To begin to recognise that there are different food groups.</p> <p>To name foods that are nutritious and healthy and why they are important for a balanced diet.</p> <p>Evaluate and critique their cooking and meals and say how it could be improved.</p> <p><b>Maestro Push and Pull</b></p> <p><b>Make an Easter card</b> using a fixed point called a pivot using a strong bar. Reiterate that mechanisms create different types of movement, e.g. side-to-side; up-and-down; round-and-round. Recall that one type of mechanism is called a 'slider.' Another type of mechanism is called a 'pivot.' Know a pivot mechanism moves in an arc whereas a slide mechanism moves up-and-down or side-to-side.</p> <p>Make an easter card with a pivot mechanism that moves in an arc.</p>	<p><b>Beach Hut Structure</b></p> <p>Design an appealing beach hut using recycled materials. Strengthen, score and join materials. Evaluate design</p> <p><b>Cut, stitch and join</b></p> <p>Explore everyday objects that have fastenings, openings, seams, stitching. Cath Kidston – explore the design features of Cath Kidston products. Make card models of bag tags and lace with a thin ribbon.</p> <p>Join fabric with running stitch.</p> <p><b>Push and Pull</b></p> <p><b>Make a Father's Day card</b> using a 'linkage' mechanism that combines a 'slider' and 'pivot' mechanisms. Reiterate that mechanisms create different types of movement, e.g. SLIDER side-to-side; up-and-down; round-and-round or PIVOT moves in an arc. Recall that one type of mechanism is called a 'slider.' Another type of mechanism is called a 'pivot.' Know a pivot mechanism moves in an arc whereas a slide mechanism moves up-and-down or side-to-side.</p> <p>Know that linkages are made from bars that are joined together by pivots and by moving one bar can make the other bars move in different directions. Linkage mechanisms can change the direction of movement. Linkages used two different kinds of pivots: fixed pivots attach the linkage mechanism to a fixed base to keep the joints still; moving pivots connect two bars and the bars can still move freely as they are not fixed to the base.</p> <p>Food technology linked to HBHMW</p>

Medium-term planning will be used to outline the learning intentions, vocabulary and knowledge that will be taught in each unit of work, as well as highlighting the opportunities for assessment.



## **5. Impact**

Monitoring and review: The design and technology subject leader will undertake a monitoring of the curriculum exercise at least once a term.

This policy will be reviewed on an annual basis to ensure that it complies with the latest legislation, guidance and best practice.

The next scheduled review date of this policy is February 2024

### **Assessment:**

Assessment in design and technology be undertaken as part of a broader evaluation of pupil progress measured against specified assessment criteria.

The design and technology subject leader will ensure that assessment:

- Is embedded as an essential part of teaching and learning.
- Involves sharing learning objectives and success criteria with pupils.
- Aims to help pupils to know and recognise the standards they are aiming for.
- Involves pupils in peer and self-assessment.
- Provides subject-specific feedback which leads pupils to recognising their next steps and how to take them where appropriate.
- Involves both teacher and pupils reviewing and reflecting on assessment data.
- In the yearly written report given to parents, (sent in July) parents will be informed of their child's attainment grade.

### **6. Equal Opportunities/Promoting Diversity in Design and Technology**

All children will have equal access to the design and technology provision at Black Horse Hill Infant School.

Lessons should reflect diversity and inclusivity, with people from different countries, race, gender, background, religion and where appropriate abilities (able and disabled people).

### **7. Roles and responsibilities**

**The design and technology subject leader will be responsible for:**

- Developing, resourcing and reviewing this policy.
- Planning, instigating and monitoring teaching programmes.
- Liaising with colleagues, including the SENCO, to differentiate teaching programmes in accordance with the needs of individual pupils.
- Working with other staff to teach the subject content.
- Keeping staff informed of visits and courses.
- Facilitating the assessment of pupils' work.
- Keeping up-to-date with current affairs and best practice regarding design and technology.
- Providing guidance, including INSET training to design and technology staff, as part of their ongoing professional development.
- Undertaking the performance reviews of design and technology staff and updating the **headteacher**.

- Celebrating and promoting the design and technology curriculum and the work of pupils throughout the school.

**Staff teaching design and technology will be responsible for:**

- Contributing to the development of this policy and teaching programmes, with the design and technology **subject leader**.
- Developing schemes of work and lesson plans in line with this policy and the objectives of the design and technology curriculum.
- Facilitating the teaching of the r design and technology curriculum, including coordinating activities and resources within their specific areas.
- Assessing and recording pupils' progress and keeping the r design and technology **subject leader** apprised of this.
- Providing feedback to parents on pupils' progress at parents' evenings and other meetings.
- Attending and contributing to any INSET days organised by the r design and technology design **subject leader**
- Keeping apprised on current affairs and best practice on their design and technology curriculum and applying this to their schemes of work.

Mrs Elizabeth Astbury  
Design and technology Subject leader  
February 2023